

WHAT IS CLAIMED IS:

1. An image processing device comprising:

processing degree setting means for setting a target degree of color processing with regard to at least two properties of a plurality of properties of an image signal, as a single target processing degree;

processing coefficient group creation means for creating a processing coefficient group for performing the color processing of the target processing degree, based on the target processing degree that is set by the processing degree setting means and a plurality of base coefficient groups that perform the color processing to differing degrees; and

color processing execution means for performing the color processing with respect to the image signal using the processing coefficient group that is created by the processing coefficient group creation means.

2. The image processing device according to claim 1,

wherein the processing coefficient group creation means creates the processing coefficient group by interpolating or extrapolating the plurality of base coefficient groups based on the target processing degree.

3. The image processing device according to claim 1,

wherein the plurality of properties include a hue, a vividness, and a brightness of the image signal.

4. The image processing device according to claim 1,

wherein the color processing is memory color correction.

5. The image processing device according to claim 4,

wherein the processing degree setting means sets a correction trend of memory color correction as the target processing degree; and

wherein the processing coefficient group creation means creates the processing coefficient group by interpolating or extrapolating the plurality of base coefficient groups for performing memory color correction with different correction trends based on the target processing degree.

6. The image processing device according to claim 4,
wherein the processing degree setting means sets a correction strength of memory color correction as the target processing degree; and
wherein the processing coefficient group creation means creates the processing coefficient group by interpolating or extrapolating a base coefficient group for performing memory color correction of a predetermined correction strength and a base coefficient group with which memory color correction is not performed, based on the target processing degree.

7. The image processing device according to claim 1,
wherein the plurality of base coefficient groups are a plurality of base matrix data whose size corresponds to the number of the plurality of properties of the image signal; and
wherein the color processing execution means performs a matrix computation on the image signal using processing matrix data that is created by the processing coefficient group creation means.

8. The image processing device according to claim 7,
wherein the processing coefficient group creation means creates the processing matrix data by interpolating or extrapolating the base

matrix data based on the target processing degree.

9. The image processing device according to claim 1,

wherein the plurality of base coefficient groups are a plurality of
5 base lookup tables that store values of the image signal after the color
processing, corresponding to the values of the image signal; and

wherein the color processing execution means performs the color
processing on the image signal using a processing lookup table that is
created by the processing coefficient group creation means.

10

10. The image processing device according to claim 9,

wherein the processing coefficient group creation means creates
the processing lookup table by interpolating or extrapolating the base
lookup tables based on the target processing degree.

15

11. The image processing device according to claim 1,

wherein the processing degree setting means has first processing
degree setting means for setting a first target processing degree, which is
a target for a correction trend of memory color correction, and second
20 processing degree setting means for setting a second target processing
degree, which is a target for a correction strength of memory color
correction;

wherein the processing coefficient group creation means creates
the processing coefficient group by interpolating or extrapolating the
25 plurality of base coefficient groups for performing memory color
correction at different correction trends, based on the first processing
degree and the second processing degree.

12. The image processing device according to claim 1,

wherein the processing coefficient group creation means creates the processing coefficient group by changing only a specific section of the base coefficient groups.

5 13. The image processing device according to claim 12,
wherein the specific section is a section that is determined by the processing degree setting means.

10 14. The image processing device according to claim 12 or 13,
wherein the specific section is a section of the base coefficient groups that gives a transformation coefficient for a predetermined memory color.

15 15. An image processing system comprising:
image processing execution means for performing image processing of an image signal and outputting a processed signal; and
display signal creation means for creating a display signal for displaying the processed signal;
wherein the display signal is a signal that is obtained by
20 reprocessing a predetermined region of the processed signal; and
wherein the predetermined region is a region that is specified by comparing gradation properties of the image signal and the processed signal.

25 16. The image processing system according to claim 15,
wherein the predetermined region is a region whose gradation order with respect to surrounding regions is different for the image signal and the processed signal.

17. The image processing system according to claim 15,
wherein the reprocessing is processing for transforming a color of
the predetermined region.

5 18. An image processing method, comprising:

a processing degree setting step of setting a target degree of color
processing with regard to at least two properties of a plurality of
properties of an image signal, as a single target processing degree;

10 a processing coefficient group creation step of creating a
processing coefficient group for performing the color processing of the
target processing degree, based on the target processing degree that is
set in the processing degree setting step and a plurality of base
coefficient groups for performing the color processing to differing
degrees; and

15 a color processing execution step of performing the color
processing with respect to the image signal using the processing
coefficient group that is created in the processing coefficient group
creation step.

20 19. An image processing program for performing color processing of
an image signal through a computer;

wherein the image processing program causes a computer to
perform an image processing method comprising:

25 a processing degree setting step of setting a target degree of the
color processing with regard to at least two properties of a plurality of
properties of the image signal, as a single target processing degree;

a processing coefficient group creation step of creating a
processing coefficient group for performing the color processing of the
target processing degree, based on the target processing degree that is

set in the processing degree setting step and a plurality of base coefficient groups for performing the color processing to differing degrees; and

5 a color processing execution step of performing the color processing with respect to the image signal using the processing coefficient group that is created in the processing coefficient group creation step.

20. An integrated circuit device comprising:

10 a processing degree setting portion for setting a target degree of color processing with regard to at least two properties of a plurality of properties of an image signal, as a single target processing degree;

15 a processing coefficient group creation portion for creating a processing coefficient group for performing the color processing of the target processing degree, based on the target processing degree that is set by the processing degree setting portion and a plurality of base coefficient groups that perform the color processing to differing degrees; and

20 a color processing execution portion for performing color processing with respect to the image signal using the processing coefficient group that is created by the processing coefficient group creation portion.

21. An image processing method comprising:

25 an image processing execution step of performing image processing of an image signal and outputting a processed signal; and

a display signal creation step of creating a display signal for displaying the processed signal;

wherein the display signal is a signal that is obtained by

reprocessing a predetermined region of the processed signal; and

wherein the predetermined region is a region that is specified by comparing gradation properties of the image signal and the processed signal.

5

22. An image processing program that causes a computer to perform an image processing method comprising:

an image processing execution step of performing image processing of an image signal and outputting a processed signal; and

10 a display signal creation step of creating a display signal for displaying the processed signal;

wherein the display signal is a signal that is obtained by reprocessing a predetermined region of the processed signal; and

15 wherein the predetermined region is a region that is specified by comparing gradation properties of the image signal and the processed signal.

23. An integrated circuit device comprising:

20 an image processing execution portion for performing image processing of an image signal and outputting a processed signal; and

a display signal creation portion for creating a display signal for displaying the processed signal;

wherein the display signal is a signal that is obtained by reprocessing a predetermined region of the processed signal; and

25 wherein the predetermined region is a region that is specified by comparing gradation properties of the image signal and the processed signal.